

**Commonwealth of Kentucky
Energy and Environment Cabinet
Department for Environmental Protection
Division for Air Quality
200 Fair Oaks Lane, 1st Floor
Frankfort, Kentucky 40601
(502) 564-3999**

Final

**AIR QUALITY PERMIT
Issued under 401 KAR 52:020**

Permittee Name: Tennessee Valley Authority (TVA)
Mailing Address: 7900 Metropolis Lake Road, Highway 996,
West Paducah, Kentucky 42086-9414

Source Name: TVA-Shawnee Fossil Plant (SHF)
Mailing Address: 7900 Metropolis Lake Road, Highway 996,
West Paducah, Kentucky 42086-9414

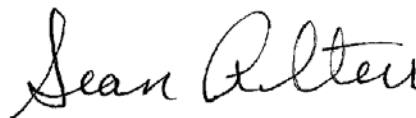
Source Location: South Bank of the Ohio River

Permit: V-09-002 R3
Agency Interest: 3073
Activity: APE20130006
Review Type: Title V, Operating
Source ID: 21-145-00006

Regional Office: Paducah Regional Office
130 Eagle Nest Drive
Paducah, KY 42003
(270) 898-8468

County: McCracken

Application
Complete Date: February 22, 2009
Issuance Date: October 22, 2009
Revision Date: May 12, 2014
Expiration Date: October 22, 2014



**Sean Alteri, Director
Division for Air Quality**

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Permit number	Permit type	Activity#	Complete Date	Issuance Date	Summary of Action
V-09-002	Renewal	APE20080004	05/05/09	10/22/09	Renewal Permit
V-09-002 R1	Significant Revision/ Reopening for Cause	APE20100002	04/19/10	02/08/11	Material mistake and inaccurate references
V-09-002 R2	Minor Revision	APE20110001	08/03/11	10/18/11	Construction and Operation of PM CEMS
V-09-002 R3	Minor Revision	APE20130001	11/24/13	05/12/14	Addition of Dry Sorbent Injection to comply with MATS

SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first submitting a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:020, Title V Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

Emissions Units 01-09 - Nine Indirect Heat Exchangers

Description:

Pulverized coal-fired, dry-bottom, wall-fired units

Control equipment: bagfilters and cyclones provide 99% overall efficiency.

Hydrated Lime Injection (dry) at 1.15 tons/hour for each boiler -2013

Secondary fuel: Less than 5% of the boiler's heat input - nonhazardous waste materials such as used oil with less than 50 ppm PCB, boiler cleaning chemicals, solvents, oil-contaminated soil, rags, absorbent materials and filters. Less than 3% of the boiler's heat input – clean wood.

Number two fuel oil used for startup and stabilization

Maximum continuous rating: 1,691 MMBtu/hour (175 Megawatts) each

Construction commenced: prior to 1953

Applicable Regulations:

401 KAR 61:015, Existing indirect heat exchangers

40 CFR 63, Subpart UUUUU, National Emission Standards for Hazardous Air Pollutants: Coal and Oil-fired Electric Utility Steam Generating Units

401 KAR 51:160, NO_x requirements for large utility and industrial boilers

401 KAR 51:210, CAIR NO_x annual trading program

401 KAR 51:220, CAIR NO_x ozone season trading program

401 KAR 51:230, CAIR SO₂ Trading Program

40 CFR Part 64, Compliance Assurance Monitoring (CAM) applies to PM for these units;

401 KAR 52:060, Acid rain permits

40 CFR Part 52, Approval and promulgation of implementation plans, Subpart S – Kentucky;

401 KAR 63:020, Potentially hazardous matter or toxic substances (*State Only*).

ADDITIONAL REQUIREMENTS:

Federal Facilities Compliance Agreement filed on April 14, 2011, between the United States Environmental Protection Agency and the Tennessee Valley Authority, Case 3:11-cv-00170, Docket No. CAA-04-2010-1528(b) (“Compliance Agreement”)

1. Operating Limitations:

The permittee shall comply with all applicable provisions of 40 CFR 63.9991 no later than April 16, 2015.

2. Emission Limitations:

- a. Pursuant to 401 KAR 61:015, Section 4 (1), particulate matter emissions shall not exceed 0.11 lb/MMBtu for each unit.

Compliance Demonstration:

To demonstrate compliance with this requirement the permittee shall use the performance tests required by Subsection 3(a) and a PM CEMS.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- b. Pursuant to 401 KAR 61:015, Section 4 (2), emissions shall not exceed twenty (20) percent opacity based on a six-minute average for each unit except that:
 - i. For pulverized fired indirect heat exchangers, a maximum of 40 percent opacity shall be permissible for not more than one 6-minute period in any 60-consecutive minutes.
 - ii. Emissions from an indirect heat exchanger during building a new fire for the period required to bring the boiler up to operating conditions provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations.

Compliance Demonstration:

To demonstrate compliance with this requirement the permittee shall use the performance tests required by Subsection 3(b).

- c. Pursuant to 401 KAR 61:015, Section 5 (1), sulfur dioxide emissions shall not exceed 1.2 lbs/MMBtu based on a twenty-four hour average for each unit.

Compliance Demonstration:

To demonstrate compliance with this requirement the permittee shall use the performance tests required by Subsection 3(c) and a SO₂ CEMS.

- d. The permittee shall comply with all applicable provisions of 40 CFR 63.9991, no later than April 16, 2015.

General MATS Compliance Demonstration Method:

- i. The permittee shall comply with 40 CFR 63, Subpart UUUUU, no later than April 16, 2015 [40 CFR 63.9984(b)].
- ii. The permittee shall meet the notification requirements in 40 CFR 63.10030 according to the schedule in 40 CFR 63.10030 and in 40 CFR 63, Subpart A. Some of the notifications must be submitted before compliance with the emission limits and work practice standards in 40 CFR 63, Subpart UUUUU is required [40 CFR 63.9984(c)].
- iii. The permittee shall demonstrate that compliance has been achieved, by conducting the required performance tests and other activities, no later than one-hundred-eighty (180) days after the applicable date in paragraph (b) or (c) of 40 CFR 63.9984 [40 CFR 63.9984(f)].
- iv. The permittee shall demonstrate continuous compliance according to 40 CFR 63.10000 through 40 CFR 63.10023, no later than April 16, 2015.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**3. Testing Requirements:**

- a. Pursuant to the Compliance Agreement (paragraph 105), beginning in calendar year 2011, and continuing in each calendar year thereafter, the permittee shall conduct a performance test for filterable particulate matter on the common stacks for EU 01-05 and EU 06-09 for emission units 01-09, according to 40 CFR 60, Appendix A, Method 5, 5B, or 17, or an alternative method approved by EPA.
- b. Pursuant to the Compliance Agreement (paragraph 106), beginning in the calendar year 2011, and continuing for three (3) consecutive calendar years thereafter, the permittee shall conduct a performance test for condensable particulate matter on the common stacks for EU 01-05 and EU 06-09 for emission units 01-09, according to 40 CFR 60, Appendix A, Method 5, 5B, or 17, or an alternative method approved by EPA.
- c. Pursuant to Subsection (4) of this unit, Specific Monitoring Requirements, the permittee shall determine the opacity of emissions from the stack by Method 9 at least once every 14 boiler operating days when operating, or more frequently if requested by the Division, to demonstrate compliance with the opacity standard. If no Method 9 tests are completed during the time period, the reason for not completing a test shall be documented.
- d. Pursuant to 401 KAR 50:045, Performance Tests, Section 5. Test Conditions:
 - i. In order to demonstrate that a source is capable of complying with a standard at all times, a performance test shall be conducted under normal conditions that are representative of the source's representative of maximum emissions potential under anticipated operating conditions at the pollutant-specific emissions unit. The Division for Air Quality may waive this requirement on a case-by-case basis if the source demonstrates to the cabinet's satisfaction that the source is in compliance with all applicable requirements.
 - ii. If the maximum production rate represents a source's highest emissions rate and a performance test is conducted at less than the maximum production rate, a source shall be limited to a production rate of no greater than 110 percent of the average production rate during the performance tests.
- e. The permittee shall comply with all applicable provisions of 40 CFR 63.10005 through 40 CFR 63.10009 and 40 CFR 63.10011, no later than April 16, 2015.

4. Specific Monitoring Requirements:

- a. Pursuant to 401 KAR 61:005, Section 3, Performance Specification 2 of Appendix B to 40 CFR 60 or 40 CFR 75, Appendix A, and 401 KAR 52:020, Section 10, continuous emission monitoring (CEM) systems shall be installed, calibrated, maintained, and operated for measuring particulate matter emissions, nitrogen oxides emissions, sulfur dioxide emissions and carbon dioxide emissions.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- b. Pursuant to 40 CFR 64.6(c) and the Federal Facilities Compliance Agreement (paragraph 111), to assure compliance with the PM emission limits for Emission Units 01-09 when using the common stack the permittee shall:
 - (1) Install, calibrate, maintain and operate a PM CEMS according to Performance Specification 11 in Appendix B to 40 CFR 60 and the EPA approved plan for installation and correlation of the PM CEMS and the Quality Assurance/Quality Control protocol.
 - (2) The PM CEMS data shall be continuously monitored and recorded to determine hourly average PM emissions. The hourly average PM emissions shall be used to determine the 24-hour block average PM emission rate; and
 - (3) If any 24-hour block average PM emission rate exceeds the 75% of the PM emission limit (0.0825 MMBtu/hr), the permittee shall immediately initiate an investigation and take corrective action for each excursion and shall correct any revealed performance issues in the most expedient manner possible.
 - (4) The pressure drop across baghouses, fan amperage and inlet temperature of the baghouses will be monitored and compared to the manufacturer's recommended operating range listed in Subsection 4.i. Once any of these parameters falls outside the recommended operating range, the permittee shall immediately initiate an investigation of the fabric filters to determine the cause and make any necessary repairs or take corrective actions in the most expedient manner possible.
 - (5) If the 24-hour block measured by the PM CEMS exceeds 0.11 lb/MMBtu for more than 5% of the operating time in a calendar quarter, TVA-SHF will conduct performance testing, pursuant to Subsection 2(c) of this unit, at the stack during the next quarter while operating under representative conditions. This requirement may be waived if the permittee can demonstrate to the satisfaction of the Division that the cause of the exceedance has been indentified and corrected.
- c. Pursuant to 401 KAR 52:020, Section 10, the pressure drop across baghouses, fan amperage and inlet temperature of the baghouses will be monitored on a continuous basis and compared with the manufacturer's specified operating ranges below to ensure compliance.
- d. The permittee shall comply with all applicable monitoring requirements of 40 CFR 63.11010, 40 CFR 63.10020 and 40 CFR 63.10021, no later than April 16, 2015
- e. Pursuant to 401 KAR 61:015, Section 6(3), the rate of each fuel burned shall be measured daily or at shorter intervals and recorded. The heating value, sulfur content and ash content of

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

fuels shall be ascertained at least once per week and recorded. The permittee may use the certification from the fuel supplier to satisfy this requirement. Where the indirect heat exchanger is used to generate electricity, the average electrical output, and the minimum and maximum hourly generation rate shall be measured and recorded daily.

- f. Pursuant to 401 KAR 61:005, Section 3(5), the Division may provide a temporary exemption from the monitoring and reporting requirements of 401 KAR 61:005, Section 3, for the continuous monitoring system during any period of monitoring system malfunction, provided that the source owner or operator shows, to the Division's satisfaction, that the malfunction was unavoidable and is being repaired as expeditiously as practicable.
- g. Pursuant to 40 CFR 75.2(a), the permittee shall monitor and calculate sulfur dioxide, nitrogen oxide and carbon dioxide emissions on a calendar year basis as measured by the continuous emissions monitor (CEM).
- h. Pursuant to 401 KAR 52:020, Section 10, to meet the monitoring requirement for calculating sulfur dioxide, nitrogen oxide and carbon dioxide emissions, the permittee shall use a continuous emission monitor (CEM). Excluding the startup and shut down periods, if any 24-hour average sulfur dioxide value exceeds the standard, the permittee shall, as appropriate, initiate an inspection of the control equipment and the CEM system and make any necessary repairs as soon as practicable.
- i. Pursuant to 401 KAR 50:045, Section 1 and 401 KAR 52:020, Section 10, for the purposes of 401 KAR 63:020, the permittee shall take a sample of fuel as fired for a one year period upon issuance of this permit. The samples taken shall be uniformly mixed to form a composite sample analyzed to determine antimony, arsenic, beryllium, cadmium, chromium, lead, manganese, mercury, nickel, and selenium content on a quarterly basis and report to the Regional Office. A weekly grab sample shall be taken as fired for each type of unit (Units 01-09 and Unit 10), then uniformly mixed to form a composite sample, and tested quarterly. After the initial one year period, sampling shall be reduced to an annual grab sample to be analyzed for the same substances and reported to the Regional Office. Fuel vendor certified data may also be used.
- j. Pursuant to 401 KAR 52:020, Section 10, the permittee shall monitor the duration of start ups and shutdowns.
- k. See Section F for further requirements.

Parameter:	Design Limit:	Alarm Set Point:
Pressure Drop	Less than 10 inches H ₂ O	8.5" H ₂ O
Fan Amperage (Amps)	Less than 300 Amps	257 Amps and every 5 Amps above 257
Inlet Temperature	Less than 425 °F	400 °F

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**5. Specific Recordkeeping Requirements:**

- a. Records shall be kept in accordance with 401 KAR 61:015, Section 6, with the exception that the records shall be maintained for a period of five years.
- b. Pursuant to 401 KAR 52:020, Section 10, the permittee shall maintain records of the results of all compliance tests.
- c. In accordance with 401 KAR 61:005, Section 3, Performance Specification 1 of 40 CFR 60, Appendix B, 401 KAR 52:020, Section 10, and 40 CFR 75.2(a), the permittee shall maintain the records of the following:
 - i. Data collected either by the continuous monitoring systems or as necessary to convert monitoring data to the units of the applicable standard;
 - ii. Results of all compliance tests;
 - iii. Records of the fuel analysis;
 - iv. Rate of fuel burned for each fuel on a daily basis;
 - v. Heating value and ash content on a weekly basis; and
 - vi. Average electrical output and the minimum and maximum hourly generation rate on a daily basis.
- d. In accordance with 401 KAR 61:005, Section 3, Performance Specification 1 of 40 CFR 60, Appendix B, 401 KAR 52:020, Section 10, and 40 CFR 75.2(a), the permittee shall maintain the records of the pressure drop across baghouses, fan amperage and inlet temperature of the baghouses monitored on a continuous basis.
- e. Pursuant to 40 CFR 64.6(c), the permittee shall maintain records of the causes and corrective actions taken associated with any exceedance or excursion identified in Subsection 4(b)(3) or 4(b)(4).
- f. Pursuant to 401 KAR 52:020, Section 10, the permittee shall keep visible observation records and Method 9 observations in a designated logbook. Records shall be maintained for five years.
- g. Pursuant to 401 KAR 52:020, Section 10, the permittee shall record the duration of startup and shutdowns.
- h. Pursuant to 401 KAR 52:020, Section 10, the pressure drop across baghouses, fan amperage and temperature of the baghouses will be recorded on a continuous basis and compared with the manufacturer's specified operating range to ensure compliance.
- i. Pursuant to 40 CFR 64.6(c), If five (5) percent or more of a unit's operating hours in a calendar quarter report PM exceedances, in accordance with the compliance assurance monitoring in Subsection 4(b)(5) then the permittee shall develop and maintain a quality improvement plan (QIP) according to 40 CFR 64.8.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**6. Specific Reporting Requirements:**

- a. Pursuant to 401 KAR 61:005, Section 3(16), minimum data requirements that follow shall be maintained and reported quarterly by approved field office format. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter.
 - i. Owners or operators of facilities required to install continuous monitoring systems shall submit a written report of excess emissions, including a description of the nature and cause of the excess emissions if known. The averaging period used for data reporting should correspond to the averaging period specified in the emission test method used to determine compliance with an emission standard for the pollutant/source category in question.
 - ii. For opacity measurements, the summary shall consist of:
 1. The magnitude in percent opacity of six (6) minute averages of opacity greater than the opacity standard for each hour of operation of the facility. Average values may be obtained by integration over the averaging period or by arithmetically averaging a minimum of four (4) equally spaced, instantaneous opacity measurements per minute. Any time period exempted shall be considered before determining the excess average opacity. Opacity data shall be reported in electronic files only.
 2. A report of the number of excursions (excluding any exempted time periods) above the opacity indicator level, date and time of excursions, opacity value of the excursions, and percentage of the COM data showing excursions above the opacity indicator level.
 - iii. For gaseous measurements, the summary shall consist of hourly averages in the units of the applicable standard. The hourly averages shall not appear in the written summary, but shall be provided in electronic files only.
 - iv. The date and time identifying each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of system repairs or adjustments shall be reported. Proof of continuous monitoring system performance whenever system repairs or adjustments have been made is required.
 - v. When no excess emissions have occurred and the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be included in the report.
- b. Pursuant to 401 KAR 52:020, Section 10, for exceedances that occur as a result of start-up, the permittee shall report:
 - i. The type of start-up (cold, warm, or hot);
 - ii. Whether or not the duration of the start-up exceeded the manufacturer's recommendation or typical, historical durations, and if so, an explanation of why the start-up exceeded recommended or typical durations.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- c. Pursuant to 401 KAR 52:020, Section 10 and 40 CFR 64.9(a), the owner or operator shall report the following information regarding its CAM plan according to the general reporting requirements specified in Section F.5. of this permit:
 - i. Number of exceedances or excursions;
 - ii. Duration of each exceedance or excursion;
 - iii. Cause of each exceedance or excursion;
 - iv. Corrective actions taken on each exceedance or excursion;
 - v. Number of monitoring equipment downtime incidents;
 - vi. Duration of each monitoring equipment downtime incident;
 - vii. Cause of each monitoring equipment downtime incident;
 - viii. Description of actions taken to implement a quality improvement plan and upon completion of the quality improvement plan, documentation that the plan was completed and reduced the likelihood of similar excursions or exceedances.
 - d. Pursuant to 401 KAR 52:020, Section 10, the permittee shall report quarterly the total sulfur dioxide and nitrogen oxides emissions.
 - e. Pursuant to 401 KAR 50:045, Section 1 and 401 KAR 52:020, Section 10, for the purposes of 401 KAR 63:020, the permittee shall report to the Regional Office, the antimony, arsenic, beryllium, cadmium, chromium, lead, mercury, manganese, nickel, selenium and vanadium content of the uniformly mixed composite samples analyzed quarterly for one year. After the initial one year period, the analysis of annual grab samples shall be reported to the Regional Office. Fuel vendor certified data may also be used.
- 7. Specific Control Equipment Operating Conditions:**
- a. Pursuant to 401 KAR 50:055 and the Compliance Agreement, paragraph 102, the bagfilters and cyclones shall be continuously operated to maintain compliance with permitted emission limitations, consistent with manufacturer's specifications and good operating practices.
 - b. Pursuant to 401 KAR 59:005, records regarding the maintenance of the bagfilters and cyclones shall be maintained and retained by the permittee for a period of five years.
 - c. See Section E for further requirements.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**Emissions Unit 10 (10) - Indirect Heat Exchanger (Idle 2010)****Description:**

Fluidized-bed combustor, coal-fired, bubbling-bed, fly ash reinjection unit

Control equipment: bagfilters and cyclones provide 99.7% overall PM control efficiency.

Secondary fuel: No more than 5% of the boiler's heat input shall be other nonhazardous waste materials such as used oil with less than 50 ppm PCB, boiler cleaning chemicals, solvents, oil-contaminated soil, rags, absorbent materials and filters.

Number two fuel oil used for startup and stabilization

Maximum continuous rating: 1,800 MMBtu/hour (175 Megawatts)

Construction commenced in 1988

Applicable Regulations:

401 KAR 60:005, Standards of Performance for Electric Utility Steam Generating Units

401 KAR 51:017, Prevention of Significant Deterioration of air quality

401 KAR 52:060, Acid rain permits,

401 KAR 51:210, CAIR NO_x annual trading program;

401 KAR 51:220 CAIR NO_x ozone season trading program;

401 KAR 51:230, CAIR SO₂ Trading Program;

40 CFR 64, Compliance Assurance Monitoring (CAM) applies to PM for these units;

401 KAR 51:160, NO_x requirements for large utility and industrial boilers;

401 KAR 63:020, Potentially hazardous matter or toxic substances (*State Only*).

1. Operating Limitations:

NA

2. Emission Limitations:

- a. Pursuant to 40 CFR 60.42Da (a)(1) and 401 KAR 51:017, particulate matter (PM) emissions shall be reduced by 99% of potential combustion concentration and shall not exceed 0.03 lb/MMBtu. Compliance with the PM emission limitation under 40 CFR 60.42Da(a)(1) constitutes compliance with the reduction requirements for PM under 40 CFR 60.42Da(a)(2) and (3).
- b. Pursuant to 40 CFR 60.42Da (b), no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases which exhibit greater than 20% opacity (6-minute average), except for one 6-minute period per hour of not more than 27% opacity.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- c. Pursuant to 40 CFR 60.43Da (a)(1) and (2), SO₂ emissions shall not exceed 1.2 lb/MMBtu actual heat input for combustion of solid fuels and 10% of the potential combustion concentration (90% reduction), based on a thirty (30) day rolling average or 30% of the potential combustion concentration (70% reduction), when emissions are less than 0.60 lb/MMBtu heat input.
- d. Pursuant to 40 CFR 60.48Da(c), the PM emission standards apply at all times except during periods of startup, shutdown, or malfunction.
- e. Pursuant to 40 CFR 60.44Da (a)(1), nitrogen oxides emissions shall not exceed 0.6 lb/MMBtu heat input derived from solid fuel and 65 percent of the potential combustion concentration, based on a thirty (30) day rolling average. Compliance with the NO_x emission limitation under CFR 60.44Da(a)(1) constitutes compliance with the percent reduction requirements under CFR 60.44Da(a)(2).
- f. Pursuant to 401 KAR 51:017, carbon monoxide emissions shall not exceed 0.4 lb/MMBtu.
- g. Pursuant to 40 CFR 60.48Da(c), the NO_x emission standards apply at all times except during periods of startup, shutdown, or malfunction.
- h. Pursuant to 40 CFR 60.48Da(g)(1), the SO₂ standards under 40 CFR 60.43Da apply at all times except during periods of startup, shutdown, or emergency.

3. Testing Requirements:

- a. Pursuant to the reference methods in Appendix A of 40 CFR 60 except as provided in 401 KAR 50:045, the following shall be used to determine compliance with the standards as prescribed in Sections 4, 5, and 6 of this administrative regulation as follows:
 - i. Reference Method 1 for the selection of sampling site and sample traverses;
 - ii. Reference Method 3 for gas analysis to be used when applying Reference Methods 5, 6, and 7;
 - iii. Reference Method 17 for concentration of particulate matter and the associated moisture content;
 - iv. CEMs shall be used to determine compliance with SO₂ and NO_x emission standards.
- b. Pursuant to 401 KAR 50:055, Section 2(1)(b), an owner or operator of any affected facility subject to any standard within the administrative regulations of the Division for Air Quality shall demonstrate compliance with the applicable standard before or on the date that final compliance is required by the applicable compliance schedule unless otherwise specified by administrative regulation.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- c. Pursuant to Subsection (4) of this unit, Specific Monitoring Requirements, the permittee shall determine the opacity of emissions from the stack by EPA Reference Method 9 at least once every 14 boiler operating days when operating, or more frequently if requested by the Division, to demonstrate compliance with the opacity standard. If no Method 9 tests are completed during the time period, the reason for not completing a test shall be documented and the permittee may use the COM system for assuring compliance with the visible emission limitation during that period.
- d. Pursuant to 401 KAR 50:045, Performance Tests, and 40 CFR 64.4(c)(1), the testing shall be conducted under conditions representative of maximum emissions potential under anticipated operating conditions at the pollutant-specific emissions unit.
- e. Pursuant to 401 KAR 52:020, Section 10, and in accordance with subsection (4) of this unit, Specific Monitoring Requirements, the permittee shall submit a schedule within six months from the date of issuance of this permit to conduct testing within one year following the issuance of this permit to establish or re-establish the correlation between opacity and particulate emissions.
- f. See Section D for further requirements.

4. Specific Monitoring Requirements:

- a. Pursuant to 40 CFR 60.49Da (a)(1), the owner or operator of an affected facility, shall install, calibrate, maintain, and operate a COMS, and record the output of the system, for measuring the opacity of emissions discharged to the atmosphere. If opacity interference due to water droplets exists in the stack, the opacity is monitored upstream of the interference. If opacity interference is experienced at all locations, alternate parameters indicative of the PM control system's performance and good combustion shall be monitored.
- b. Pursuant to 401 KAR 52:020, Section 10, excluding the startup, shut down, and once per hour exemption periods, if any six-minute average opacity value exceeds the opacity standard, then opacity must be determined using Reference Method 9, or by accepting the concurrent readout from the COM and perform an inspection of the control equipment and make any necessary repairs. If a Method 9 cannot be performed, the reason for not performing the test shall be documented.
- c. Pursuant to 401 KAR 52:020, Section 10, and 40 CFR 60.49Da (b), to meet the monitoring requirement for sulfur dioxide, the permittee shall use a continuous emission monitor (CEM) Excluding the startup and shut down periods, if any 30-day rolling average emission or percent reduction value exceeds the standard, the permittee shall, as appropriate, initiate an investigation of the cause of the exceedance and the CEM system and make any necessary repairs or take corrective actions as soon as practicable. The owner or operator of an affected facility shall install, calibrate, maintain, and operate a CEMS, and record the output of the system, for measuring SO₂ emissions. An "as fired" fuel monitoring system meeting the

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

requirements of Reference Method 19 may be used to determine potential sulfur dioxide emissions in place of a continuous emission monitor at the inlet of the sulfur dioxide control device.

- d. Pursuant to 40 CFR 60.49Da (c)(1), the owner or operator of an affected facility shall install, calibrate, maintain, and operate a CEMS, and record the output of the system, for measuring NO_x emissions discharged to the atmosphere.
- e. Pursuant to 40 CFR 75.2(a), the permittee shall monitor and calculate carbon dioxide emissions on a calendar year basis as measured by the continuous emissions monitor (CEM) required.
- f. For performance evaluations under 401 KAR 59:005, Section 4(3), and calibration checks under 401 KAR 59:005, Section 4(4), the following procedures shall be used:
 - i. Reference Methods 6 or 7, filed by reference in 401 KAR 50:015, as applicable, shall be used for conducting performance evaluations of sulfur dioxide and nitrogen oxides continuous monitoring systems;
 - ii. Sulfur dioxide or nitrogen oxide, as applicable, shall be used for preparing calibration gas mixtures under Performance Specification 2 of Appendix B to 40 CFR 60, filed by reference in 401 KAR 50:015;
 - iii. For affected facilities burning fossil fuel(s), the span value for a continuous monitoring system measuring the opacity of emissions shall be eighty (80), ninety (90), or 100 percent and for a continuous monitoring system measuring sulfur oxides or nitrogen oxides the span value shall be determined as shown in Appendix B to 40 CFR 60; and
 - iv. All span values computed under paragraph (c) of this subsection for burning combinations of fuels shall be rounded to the nearest 500 ppm.
- g. Pursuant to 401 KAR 52:020, Section 10, to meet the monitoring requirement for particulate matter, the permittee shall use a COM. Pursuant to 40 CFR 64.4(a)(1) and the CAM plan received on December 17, 2008, opacity shall be used as an indicator of particulate matter emissions. Pursuant to 40 CFR Part 64.4(c)(1), testing shall be conducted to establish the level of opacity that will be used as an indicator of particulate matter emissions.

There may be short-term exceedances during the testing period required to establish the opacity indicator level. These exceedances will not be considered noncompliance periods since the testing is required to establish a permit requirement. The opacity indicator level shall be established at a level that provides reasonable assurance that particulate matter emissions are in compliance when opacity is equal to or less than the indicator level. Excluding exempted time periods:

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- i. If any three (3) hour average of opacity values exceeds the opacity indicator level, the permittee shall, as appropriate, initiate an inspection of the control equipment and the COM system and make any necessary repairs.
 - ii. If five (5) percent or greater of the COM data (three (3) hour average of opacity values) recorded in a calendar quarter show excursions above the opacity indicator level, the permittee shall perform a stack test in the following calendar quarter to demonstrate compliance with the particulate standard while operating at representative conditions. The permittee shall submit a compliance test protocol as required by Section G.5 of this permit before conducting the test. The Division may waive this testing requirement upon a demonstration that the cause(s) of the excursions have been corrected, or may require stack tests at any time pursuant to 401 KAR 50:045, Performance Tests.
- h. Pursuant to 401 KAR 52:020, Section 10, the permittee shall monitor the duration of start up and shutdown.
- i. Pursuant to 401 KAR 52:020, Section 10, the pressure drop across baghouses, fan amperage and temperature of the baghouses will be monitored on a continuous basis and compared with the manufacturer's specified operating range to ensure compliance.
- j. Pursuant to 401 KAR 50:045 Section 1 and 401 KAR 52:020, Section 10, for the purposes of 401 KAR 63:020, the permittee shall take a sample of fuel as fired for a one year period upon issuance of this permit. The samples taken shall be uniformly mixed to form a composite sample analyzed to determine antimony, arsenic, beryllium, cadmium, chromium, lead, manganese, mercury, nickel, and selenium content on a quarterly basis and report to the Regional Office. A weekly grab sample shall be taken as fired for each type of unit (Units 01-09 and Unit 10), then uniformly mixed to form a composite sample, and tested quarterly. After the initial one year period, sampling shall be reduced to an annual grab sample to be analyzed for the same substances and reported to the Regional Office. Fuel vendor certified data may also be used.
- k. For the purpose of reports required under 401 KAR 59:005, Section 3(3), periods of excess emissions that shall be reported are defined as follows:
 - i. Excess emissions are defined as any six (6) minute period during which the average opacity of emissions exceeds twenty (20) percent opacity, except that one (1) six (6) minute average per hour of up to twenty-seven (27) percent opacity need not be reported.
 - ii. Sulfur dioxide. Excess emissions for affected facilities are defined as any 30-day period during which the average emissions (arithmetic average of all hourly emission rates for 30 successive boiler operating days) of sulfur dioxide as measured by a continuous monitoring system exceed the applicable standard under 40 CFR 60.43Da (a).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- iii. Nitrogen Oxides. Excess emissions for affected facilities using a continuous monitoring system are defined as any 30-day period during which the average emissions (arithmetic average of all hourly emission rates for 30 successive boiler operating days) of nitrogen oxides exceed the applicable standard under 40 CFR 60.44Da (a).

- l. See Section F for further requirements.

5. Specific Recordkeeping Requirements:

- a. Pursuant to 401 KAR 59:005, Section 3(4) and 40 CFR 60.52Da, the owner or operator of the indirect heat exchanger shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems and devices; and all other information required by 401 KAR 59:005 and 40 CFR 60.7, recorded in a permanent form suitable for inspection.
- b. Pursuant to 40 CFR 60.7 and 401 KAR 59:005, Section 3(2), the owner or operator of this unit shall maintain the records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the affected facility, any malfunction of the air pollution control equipment; or any period during which a continuous monitoring system or monitoring device is inoperative.
- c. Pursuant to 401 KAR 52:020, Section 10, and 401 KAR 50:045, Section 6, the permittee shall maintain the results of all compliance tests.
- d. In accordance with 401 KAR 59:005, Section 3, 401 KAR 52:020, Section 10 and 40 CFR 75.2(a), the permittee shall maintain the records of the following:
 - i. Data collected either by the continuous monitoring systems or as necessary to convert monitoring data to the units of the applicable standard;
 - ii. Results of all compliance tests;
 - iii. Percentage of the COM data (excluding exempted time periods) showing excursions above the opacity standard and the opacity indicator level;
- e. Pursuant to 401 KAR 52:020, Section 10, the permittee shall keep visible observation records and Method 9 observations in a designated logbook. Records shall be maintained for five years.
- f. Pursuant to 401 KAR 52:020, Section 10, the permittee shall record the duration of startup and shutdown.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- g. Pursuant to 401 KAR 52:020, Section 10, the pressure drop across baghouses, fan amperage and temperature of the baghouses will be recorded on a continuous basis and compared with the manufacturer's specified operating range to ensure compliance.

6. Specific Reporting Requirements:

- a. Pursuant to 40 CFR 64, the permittee shall report the number of excursions above the indicator range, date and time of excursions, opacity value of the excursions, and percentage of the COM data showing excursions from the indicator range in each calendar quarter.
- b. Pursuant to 40 CFR 60.51Da and 401 KAR 59:005, Section 3, minimum data requirements which follow shall be maintained and furnished in the format specified by the Division. Owners or operators of facilities required to install continuous monitoring systems shall submit for every calendar quarter a written report of excess emissions (as defined in applicable sections) to the Division. All quarterly reports shall be postmarked by the thirtieth (30th) day following the end of each calendar quarter and shall include the following information:
 - i. The magnitude of the excess emission computed in accordance with the 401 40 CFR 60.7, any conversion factors used, and the date and time of commencement and completion of each time period of excess emissions.
 - ii. All hourly averages shall be reported for sulfur dioxide and nitrogen oxides monitors. The hourly averages shall be made available in the format specified by the Division.
 - iii. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The permittee shall determine the nature and cause of any malfunction (if known), and initiate the corrective action taken or preventive measures adopted.
 - iv. The date and time identifying each period during which continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
 - v. When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.
 - vi. For sulfur dioxide and nitrogen oxides, all information listed in 40 CFR 60.51Da (b)(1 thru 9), shall be reported to the Division for each twenty-four (24) hour period.
 - vii. If the minimum quantity of emission data as required by 40 CFR 60.49Da is not obtained for any thirty (30) successive boiler operating days, the information specified in 40 CFR 60.51Da(c), obtained under the requirements of 40 CFR 60.48Da, shall be reported for that 30-day period.
 - viii. If any sulfur dioxide standards as specified in 40 CFR 60.43 Da are exceeded during emergency conditions because of control system malfunction, the owner or operator shall submit a signed statement including all information as described in 40 CFR 60.51Da(d).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- ix. For any periods for which sulfur dioxide or nitrogen oxides emissions data are not available, the owner or operator shall submit a signed statement pursuant to 40 CFR 60.51Da(f), indicating if any changes were made in the operation of the emission control system during the period of data unavailability. Operations of control system and emissions units during periods of data unavailability are to be compared with operation of the control system and emissions units before and following the period of data unavailability.
 - x. The owner or operator shall submit a signed statement including all information as described in 40 CFR 60.51Da(h).
 - xi. Pursuant to 40 CFR 60.51Da(i), for the purposes of the reports required under 401 KAR 59:005, Section 4, as specified in 40 CFR 60.42Da(b). Owners and operators of an affected facility that elect to install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) for sulfur dioxide and nitrogen oxide shall be certified, operated and maintained in accordance with the applicable provisions of 40 CFR 75, compliance with which shall be deemed compliance with monitoring provisions of 40 CFR 60.49a.
- c. Pursuant to 401 KAR 52:020, Section 10, for exceedances that occur as a result of start-up, the permittee shall report:
- i. The type of start-up (cold, warm, or hot); and
 - ii. Whether or not the duration of the start-up exceeded the manufacturer's recommendation or typical, historical durations, and if so, an explanation of why the start-up exceeded recommended or typical durations.
- d. Pursuant to 40 CFR 64.9(a) the owner or operator shall report the following information regarding its CAM plan according to the general reporting requirements specified in Section F.5. of this permit:
- i. Number of exceedances or excursions;
 - ii. Duration of each exceedance or excursion;
 - iii. Cause of each exceedance or excursion;
 - iv. Corrective actions taken on each exceedance or excursion;
 - v. Number of monitoring equipment downtime incidents;
 - vi. Duration of each monitoring equipment downtime incident;
 - vii. Cause of each monitoring equipment downtime incident;
 - viii. Description of actions taken to implement a quality improvement plan and upon completion of the quality improvement plan, documentation that the plan was completed and reduced the likelihood of similar excursions or exceedances.
- e. The permittee shall report quarterly the twelve (12) month rolling total sulfur dioxide and nitrogen oxides emissions.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- f. Pursuant to 401 KAR 50:045 Section 1 and 401 KAR 52:020, Section 10, for the purposes of 401 KAR 63:020, the permittee shall report to the Regional Office, the antimony, arsenic, beryllium, cadmium, chromium, lead, mercury, manganese, nickel, selenium and vanadium content of the uniformly mixed composite samples analyzed quarterly for one year. After the initial one year period, the analysis of annual grab samples shall reported to the Regional Office. Fuel vendor certified data may also be used.

7. Specific Control Equipment Operating Conditions:

- a. Pursuant to 401 KAR 50:055 and the Compliance Agreement, paragraph 102, the bag filter and cyclone shall be continuously operated to maintain compliance with permitted emission limitations, consistent with manufacturer's specifications and standard operating practices.
- b. Pursuant to 401 KAR 59:005, records regarding the maintenance of the control equipments shall be maintained and retained by the permittee for a period of five years.
- c. See Section E for further requirements.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 11 - Two Indirect Heat Exchangers, 10 MMBtu/hour each

Description:

Number two fuel oil-fired

Maximum continuous rating: 10 MMBtu/hr, each

Construction commenced: 1953

Applicable Regulations:

401 KAR 61:015, Existing Indirect Heat Exchangers

40 CFR 63, Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters.

1. Operating Limitations:

- a. The permittee must comply with all applicable requirements in 40 CFR 63, Subpart DDDDD, no later than March 21, 2014 [40 CFR 63.7495(b)].
- b. The permittee must conduct biennial tune-ups of each boiler as specified in 40 CFR 63.7540(a)(10)(i) through 40 CFR 63.7540(a)(10)(vi) [40 CFR 63.7500(a)(1)]. Each biennial tune-up specified must be conducted no more than 25 months after the previous tune-up [40 CFR 63.7515(d)]. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup [40 CFR 63.7540(a)(13)].

Compliance Demonstration:

See Specific Reporting Requirement (c) below.

- c. Pursuant to 40 CFR 63.7500(a)(1), the permittee must have a one-time energy assessment performed on each boiler by a qualified energy assessor. The energy assessment must include the following requirements in items (i) through (viii) with extent of the evaluation for items (i) to (v) appropriate for the on-site technical hours listed in 40 CFR 63.7575:
 - i. A visual inspection of the boiler or process heater system;
 - ii. An evaluation of operating characteristics of the boiler or process heater systems, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints;
 - iii. An inventory of major energy use systems consuming energy from affected boilers and process heaters and which are under the control of the boiler/process heater owner/operator;
 - iv. A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage;

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- v. A review of the facility's energy management practices and provide recommendations for improvements consistent with the definition of energy management practices, if identified;
- vi. A list of cost-effective energy conservation measures that are within the facility's control;
- vii. A list of the energy savings potential of the energy conservation measures identified; and
- viii. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.

Compliance Demonstration:

See Specific Reporting Requirement (d) below.

- d. At all times, the permittee must operate and maintain the boilers, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source [40 CFR 63.7500(a)(3)].
- e. The permittee must comply with the applicable requirements in 40 CFR 63, Subpart A, as determined by Table 10 to 40 CFR 63, Subpart DDDDD [40 CFR 63.7565].

2. Emission Limitations:

- a. Pursuant to 401 KAR 61:015, Section 4(4), and particulate matter emissions shall not exceed 0.11 lb/MMBtu for each unit.
- b. Pursuant to 401 KAR 61:015, Section 4(4), emissions shall not exceed 20 percent opacity based on a six-minute average except that a maximum of forty (40) percent opacity is allowed for a period or aggregate of periods not more than six minutes in any sixty minutes.
- c. Pursuant to 401 KAR 61:015, Section 4(3)(c), except as provided for in Section 3(3) , no owner or operator of an affected facility shall cause to be discharged into the atmosphere from that affected facility emissions which exhibit greater than forty (40) percent opacity in regions classified as Priority II or III with respect to particulate matter except for emissions from an indirect heat exchanger during building a new fire for the period required to bring the boiler up to operating conditions provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations.
- d. Pursuant to 401 KAR 61:015, Section 5(1), sulfur dioxide emissions shall not exceed 0.8 lb/MMBtu based, on a twenty-four-hour average.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

3. Testing Requirements:

See Subsection 4 of this unit.

4. Specific Monitoring Requirements:

- a. Pursuant to 401 KAR 61:015, Section 6(2), the sulfur content of liquid fuels, as burned, shall be determined based on certification from the fuel supplier. The fuel supplier certification shall include the name of the oil supplier and a statement from the oil supplier that the oil complies with the specifications under the definition of distillate fuel oil as specified in the regulation.
- b. In accordance with 401 KAR 61:015, Section 6(3), the rate of fuel burned shall be measured daily.
- c. Pursuant to 401 KAR 52:020, Section 10, the permittee shall perform a qualitative visible observation of the opacity emissions from the stack on a weekly basis and maintain a log of the observations. If visible emissions from the stack are observed, then opacity shall be determined by Method 9 as detailed in 40 CFR 60, Appendix A-4. If the opacity reading is greater than twenty (20) percent then initiate the permittee shall an inspection of the equipment and make repairs if necessary.
- d. The permittee shall monitor the heating value and sulfur content of each type of fuel combusted. The permittee may use certification from the fuel supplier to satisfy this requirement. [401 KAR 61:015, Section 6 (1) and 40 CFR 63.7505(c)]

5. Specific Record Keeping Requirements:

- a. Pursuant to 401 KAR 52:020, Section 10, records of the #2 fuel oil used shall be maintained.
- b. Pursuant to 401 KAR 59:005, Section 3(3)(b), records documenting the sulfur content and heating value of the fuel oil shall be maintained.
- c. Pursuant to 401 KAR 52:020, Section 10, the permittee shall keep the results of all compliance tests.
- d. Pursuant to 401 KAR 52:020, Section 10, the permittee shall keep visible observation records and Method 9 observations, any inspections and repair records in a designated logbook. Records shall be maintained for five years.
- e. The permittee must maintain records of the calendar date, time, occurrence, and duration of each startup and shutdown and the type(s) and amount(s) of fuels used during each startup and shutdown [40 CFR 63.7555(i) and (j)].

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- f. The permittee must keep a copy of each notification and report that was submitted to comply with 40 CFR 63, Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that was submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv) [40 CFR 63.7555(a)(1)].
- g. Records must be in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1) [40 CFR 63.7560(a)]. As specific in 40 CFR 63.10(b)(1), the permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record [40 CFR 63.7560(b)]. The permittee must keep each record on site, or they must be accessible from on-site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). The permittee can keep the records off site for the remaining 3 years [40 CFR 63.7560(c)].

6. Specific Reporting Requirements:

- a. The permittee must submit to the Administrator all of the applicable notifications in 40 CFR 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) by the dates specified [40 CFR 63.7545(a)].
- b. Pursuant to 40 CFR 63.7545(e), the permittee must submit a Notification of Compliance Status according to 40 CFR 63.9(h)(2)(ii). For the initial compliance demonstration for each boiler, the permittee must submit the Notification of Compliance Status before the close of business on the 60th day following the completion of initial compliance demonstrations for all boilers at the facility according to 40 CFR 63.10(d)(2). The Notification of Compliance Status report must contain all the information specified in items (i) through (iv) below, as applicable:
 - i. A description of the affected unit(s), including identification of which subcategories the unit is in, the design heat input capacity of the unit, a description of the add-on controls used on the unit to comply with this subpart, description of the fuel(s) burned, including whether the fuel(s) were a secondary material determined by the permittee or the EPA through a petition process to be a non-waste under 40 CFR 241.3 of this chapter, whether the fuel(s) were a secondary material processed from discarded non-hazardous secondary materials within the meaning of 40 CFR 241.3 of this chapter, and justification for the selection of fuel(s) burned during the compliance demonstration;
 - ii. A signed certification that all applicable work practice standards have been met;

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- iii. If a deviation from any work practice standard occurred, the Notification of Compliance Status report must include a description of the deviation, the duration of the deviation, and the corrective action taken; and
- iv. In addition to the information required in 40 CFR 63.9(h)(2), the Notification of Compliance Status must include the following certification(s) of compliance listed in items (A) through (C), as applicable, and signed by a responsible official:
 - A) “This facility complies with the required initial tune-up according to the procedures in 40 CFR 63.7540(a)(10)(i) through (vi).”
 - B) “This facility has had an energy assessment performed according to 40 CFR 63.7530(e).”
 - C) “No secondary materials that are solid waste were combusted in any affected unit.”
- c. The permittee must submit a signed statement in the Notification of Compliance Status report that indicates that the permittee conducted a tune-up of each boiler [40 CFR 63.7530(d)].
- d. Pursuant to 40 CFR 63.7545(f), the permittee must submit a notification of alternative fuel use within 48 hours of the declaration of each period of natural gas curtailment or supply interruption, as defined in 40 CFR 63.7575. The notification must include the information specified in items (i) through (v) below:
 - i. Company name and address;
 - ii. Identification of the affected unit;
 - iii. Reason the permittee is unable to use natural gas or equivalent fuel, including the date when the natural gas curtailment was declared or the natural gas supply interruption began;
 - iv. Type of alternative fuel that the permittee intends to use; and
 - v. Dates when the alternative fuel use is expected to begin and end.
- e. Pursuant to 40 CFR 63.7550(a) and (b), the permittee must submit biennial compliance reports. The reports must be submitted according to the following schedule specified in items (i) and (ii) below:
 - i. The first compliance report must cover the period beginning on the compliance date that is specified for each boiler or process heater in Operating Limitation (a) and ending on July 31 or January 31, whichever date is the first date that occurs at least 2 years after the compliance date that is specified for your source in Operating Limitation (a). The first biennial compliance report must be postmarked or submitted no later than January 31; and

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- ii. Each subsequent compliance report must cover the applicable 2-year period from January 1 to December 31. The reports must be postmarked or submitted no later than January 31.
- f. Pursuant to 40 CFR 63.7550(c), and Table 9 to Subpart DDDDD, each biennial compliance report must contain the following information specified in items (i) through (v) below:
 - i. If there are no deviations from the applicable requirements for work practice standards, a statement that there were no deviations from the work practice standards during the reporting period;
 - ii. Company and Facility name and address;
 - iii. Process unit information, emissions limitations, and operating parameter limitations;
 - iv. Date of report and beginning and ending dates of the reporting period;
 - v. The total operating time during the reporting period; and
- g. The biennial compliance reports must be submitted electronically using CEDRI that is accessed through the EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the permittee must submit the report to the Administrator at the appropriate address listed in 40 CFR 63.13. At the discretion of the Administrator, the permittee must also submit these reports, to the Administrator in the format specified by the Administrator [40 CFR 63.7550(h)].
- h. See Section F.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 12 (Points 2, 5 & 6) - Solid-Fuel handling operations

Description:

Equipment includes: AFBC fuel prep, AFBC coal conveyor transfer point (BC-13 to BC-14), and AFBC coal bunker and conveyor BC-14 Discharge

Controls: Enclosures and Bagfilters

Operating rate: 700 tons/hour

Construction commenced: 1988

Applicable Regulations:

401 KAR 60:005, Standards of Performance for Nonmetallic Mineral Processing Plants

401 KAR 51:017, Prevention of significant deterioration of air quality

1. Operating Limitations:

NA

2. Emission Limitations:

Pursuant to 40 CFR 60.254(a), the owner or operator shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or transfer and loading system processing coal, gases which exhibit 20 percent opacity or greater.

3. Testing Requirements:

Pursuant to 40 CFR 60.254, EPA Reference Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity upon request by the Division.

4. Specific Monitoring Requirements:

Pursuant to 401 KAR 52:020, Section 10, the permittee shall perform a qualitative visible observation of the opacity emissions from the stack on a weekly basis and maintain a log of the observations. If visible emissions from the stack are observed, then opacity shall be determined by Method 9 as detailed in 40 CFR 60, Appendix A-4. If the opacity reading is greater than twenty (20) percent then initiate an inspection of the equipment and make repairs if necessary.

5. Specific Record Keeping Requirements:

- a. Pursuant to 401 KAR 52:020, Section 10, records of the fossil fuels processed shall be maintained for emissions inventory purposes.
- b. Pursuant to 401 KAR 52:020, Section 10, the permittee shall keep visible observation records and Method 9 observations, any inspections and repair records in a designated logbook. Records shall be maintained for five years.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

6. Specific Reporting Requirements:

See Section F for further requirements.

7. Specific Control Equipment Operating Conditions:

- a. Pursuant to 401 KAR 50:055, the enclosures and bagfilters shall be continuously used/operated to maintain compliance with permitted emission limitations, consistent with manufacturer's specifications and standard operating practices.
- b. Pursuant to 401 KAR 59:005, records regarding the maintenance (e.g., routine scheduled service, replacement of parts, etc.) of the control equipment shall be maintained and retained by the permittee for a period of five years.
- c. See Section E for further requirements.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions unit 13A (Points 4, 32-36, 39-44) - Solid-Fuel handling operations

Description:

Equipment includes: Screening and Crushing Building & Facilities; Rotary and Bottom Dump to Hopper at Railcar Unloader; Hopper Discharge to Conveyor BC-1; Discharge from Conveyor BC-3 and BC-4 to Conveyor BC-6, BC-7, or BC-13; Discharge from Trippers 1&2 to Bunkers; Discharge from Conveyor BC-5 to Yard Conveyor or Auxiliary Stockout Conveyor; Discharge from Yard Conveyor to Elevating Conveyor; Discharge from Elevating Conveyor to Boom Conveyor; Discharge from Boom Conveyor to Coal Storage Yard.

Operating rate: 2500 tons/hr

Construction completed: 1989, 1998 and 2000

Applicable Regulations:

401 KAR 63:010, Fugitive emissions

401 KAR 60:005, Standards of Performance for Nonmetallic Mineral Processing Plants

1. Operating Limitations:

- a. Pursuant to 401 KAR 63:010, Section 3, reasonable precautions shall be taken to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the following:
 - i. Application of water, or suitable chemicals on material stockpiles, and other surfaces which can create airborne dusts;
 - ii. Operation of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling;
- b. Pursuant to 401 KAR 63:010, Section 3, discharge of visible fugitive dust emissions beyond the property line is prohibited.

2. Emission Limitations:

Pursuant to 40 CFR 60.254(a), the owner or operator shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or transfer and loading system processing coal, gases which exhibit 20 percent opacity or greater.

3. Testing Requirements:

Pursuant to 40 CFR 60.254, EPA Reference Method 9 or 22 and the procedures in 40 CFR 60.11 shall be used to determine opacity upon request by the Division.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements

- a. Pursuant to 401 KAR 52:020, Section 10, the permittee shall perform a qualitative visible observation of the opacity emissions from the stack on a weekly basis and maintain a log of the observations. If visible emissions from the stack are observed, then opacity shall be determined by Method 9 as detailed in 40 CFR 60, Appendix A-4. If the opacity reading is greater than twenty (20) percent then initiate an inspection of the equipment and make repairs if necessary.
- b. See Section F for further requirements.

5. Specific Record Keeping Requirements:

- a. Pursuant to 401 KAR 52:020, Section 10, records of the fossil fuels received and processed shall be maintained for emissions inventory purposes.
- b. Pursuant to 401 KAR 52:020, Section 10, the permittee shall keep visible observation records and Method 9 observations, any inspections and repair records in a designated logbook. Records shall be maintained for five years.

6. Specific Reporting Requirements:

See Section F for further requirements.

7. Specific Control Equipment Operating Conditions:

- a. Pursuant to 401 KAR 50:055, the control equipment (including but not limited to hoods, enclosures, use of dust suppressant/foam, telescopic chute, and water spray system) shall be operated to maintain compliance with applicable requirements, consistent with manufacturer's specification and standard operating practice.
- b. Pursuant to 401 KAR 52:020, Section 10, records regarding the maintenance of the control equipment shall be maintained and retained by the permittee for a period of five years.
- c. See Section E for further requirements.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 13B (7) - Coal Storage Yard

Description:

Equipment includes: Coal Storage Yard

Construction commenced: 1998

Maximum Operating Rate: 2500 tons per hour

Applicable Regulations:

401 KAR 63:010, Fugitive emissions

1. Operating Limitations:

- a. Pursuant to 401 KAR 63:010, Section 3, reasonable precautions shall be taken to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the following:
 - i. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land;
 - ii. Application and maintenance of asphalt, oil, water, or suitable chemicals on roads, materials stockpiles, and other surfaces which can create airborne dusts;
 - iii. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling. Adequate containment methods shall be employed during sandblasting or other similar operations;
- b. Pursuant to 401 KAR 63:010, Section 3, discharge of visible fugitive dust emissions beyond the property line is prohibited.

2. Emission Limitations:

NA

3. Testing Requirements:

NA

4. Specific Monitoring Requirements:

Pursuant to 401 KAR 52:020, Section 10, the permittee shall monitor the amount of coal received.

5. Specific Record Keeping Requirements:

Pursuant to 401 KAR 52:020, Section 10, the permittee shall maintain records of the amount of coal received.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

6. Specific Reporting Requirements:

See Section F for further requirements.

7. Specific Control Equipment Operating Conditions:

NA

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit: 14 (12, 13, 15) - Limestone Handling and Processing

Description: Equipment includes: Limestone conditioner building, limestone recycle conveyor (BC-L-3) transfer to BC-L-2, and limestone products conveyor & bunker.

Construction commenced: 1988

Control: Bagfilter/Foam

Maximum Operating Rates:

1. Limestone conditioner building: 400 tons per hour
2. Limestone recycle conveyor (BC-L-3) transfer to BC-L-2: 200 tons per hour
3. Limestone products conveyor & bunker: 200 tons per hour each

Applicable Regulations:

401 KAR 60:005, Standards of Performance for Coal Preparation Plants

401 KAR 51:017, Prevention of significant deterioration of air quality

1. Operating Limitations:

NA

2. Emission Standards:

- a. Pursuant to 401 KAR 60:005, specifically 40 CFR 60.672(a), the owner or operator must meet a PM limit of 0.05 g/dscm (0.022 gr/dscf) and must meet an opacity limit of 7 percent for dry control devices within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under 40 CFR 60.8. Exceptions to the PM limit apply for individual enclosed storage bins and other equipment.
- b. Pursuant to 401 KAR 60:005, incorporating by reference 40 CFR 60.672(e), if any transfer point on a conveyor belt or any other affected facility is enclosed in a building, then each enclosed affected facility must meet a PM limit of 0.05 g/dscm (0.022 gr/dscf) and must meet an opacity limit of 7 percent for dry control devices and fugitive emissions limit of 10 percent opacity or Pursuant to CFR 40 CFR 60.672(e) (1) and (2) the building enclosing the affected facility must not exceed 7 percent opacity for fugitive emissions; and vents in the building must meet a PM limit of 0.05 g/dscm (0.022 gr/dscf) and must meet an opacity limit of 7 percent for dry control devices.

Compliance Demonstration:

To demonstrate compliance with this requirement the permittee shall meet the testing requirements in Subsection 3.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

3. Testing Requirements:

- a. Pursuant to 40 CFR 60.675(a), in conducting the performance tests required by 40 CFR 60.8, the permittee shall use as reference methods and procedures the test methods in appendices A-1 through A-7 of 40 CFR Part 60, except as provided in 40 CFR 60.8. The permittee may use the alternative methods and procedures provided in 40 CFR 60.675(e).
- b. Pursuant to 40 CFR 60.675(b)(1), the permittee shall determine compliance with the PM standards in Subsection 2(a) using Method 5 of Appendix A-3 to 40 CFR 60 or Method 17 of Appendix A-6 to 40 CFR 60. The sample volume shall be at least 60 dscf (1.70 dscm). For Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but not higher than 121°C (250°F), to prevent water condensation on the filter.
- c. Pursuant to 40 CFR 60.675(b)(1), the permittee shall determine opacity using Method 9 of Appendix A-4 to 40 CFR 60 and the procedures in 40 CFR 60.11.

4. Specific Monitoring Requirements:

- a. Pursuant to 401 KAR 50:020, Section 10, the permittee shall inspect the control equipment weekly and make repairs as necessary to assure compliance.
- b. Pursuant to 401 KAR 52:020, Section 10, the permittee shall perform a qualitative visible observation of the opacity emissions from the stack on a weekly basis and maintain a log of the observations. If visible emissions from the stack are observed, then opacity shall be determined by Method 9 as detailed in 40 CFR 60, Appendix A-4. If the opacity reading is greater than twenty (20) percent then initiate an inspection of the equipment and make repairs if necessary.
- c. See Section F for further requirements.

5. Specific Record Keeping Requirements:

- a. Pursuant to 401 KAR 52:020, Section 10, records of the limestone handled and processed shall be maintained for emissions inventory purposes.
- b. Pursuant to 401 KAR 52:020, Section 10, the permittee shall keep visible observation records and Method 9 observations, any inspections and repair records in a designated logbook. Records shall be maintained for five years.

6. Specific Reporting Requirements:

- a. Pursuant to 40 CFR 60.676(f), the owner(s) or operator(s) of any emissions unit shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards of 40 CFR 60.672, including reports of observations using Method 22 to demonstrate compliance.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- b. See Section F for further requirements.

7. Specific Control Equipment Operating Conditions:

- a. Pursuant to 401 KAR 50:055, the bagfilter/foam shall be continuously operated to maintain compliance with permitted emission limitations, consistent with manufacturer's specifications and standard operating practices.
- b. Pursuant to 401 KAR 52:020, Section 10, records regarding the maintenance and operation of the fabric filter shall be maintained and retained by the permittee for a period of five years.
- c. See Section E for further requirements.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit: 15 (8, 9, 10, 11, 14) - Limestone handling

Description: Equipment includes: Limestone unloading, limestone stockout conveyor (BC-L-1) discharge, limestone storage yard, limestone reclaim conveyor (BC-L-2) & emergency feeder, and limestone recycle dump.

Construction commenced: 1988

Controls: Foam Water Suppression, Enclosures and Bagfilters

Maximum Operating Rates:

1. Limestone unloading, limestone stockout conveyor (BC-L-1) discharge and limestone storage yard: 1500 tons per hour, each
2. Limestone reclaim conveyor (BC-L-2) & emergency feeder: 400 tons per hour
3. Limestone recycle dump: 200 tons per hour

Applicable Regulations:

401 KAR 60:005, Standards of Performance for Nonmetallic Mineral Processing Plants

401 KAR 51:017, Prevention of significant deterioration of air quality

1. Operating Limitations:

NA

2. Emission Limitations:

- a. Pursuant to 401 KAR 51:017, and 401 KAR 60:670, emissions of particulate shall be controlled by foam water suppression/enclosures and bagfilters.
- b. Pursuant to 401 KAR 60: 60:005, specifically 40 CFR 60.672(a), the owner or operator must meet a PM limit of 0.05 g/dscm (0.022 gr/dscf) and must meet an opacity limit of 7 percent for dry control devices within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under 40 CFR 60.8. Exceptions to the PM limit apply for individual enclosed storage bins and other equipment.

Compliance Demonstration:

To demonstrate compliance with this requirement the permittee shall meet the testing requirements in Subsection 3.

3. Testing Requirements:

- a. Pursuant to 40 CFR 60.675(a), in conducting the performance tests required by 40 CFR 60.8, the permittee shall use as reference methods and procedures of the test methods in appendices A-1 through A-7 of 40 CFR Part 60, except as provided in 40 CFR 60.8. The permittee may use the alternative methods and procedures provided in 40 CFR 60.675(e).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- b. Pursuant to 40 CFR 60.675(b)(1), the permittee shall determine compliance with the PM standards in Subsection 2(a) using Method 5 of Appendix A-3 to 40 CFR 60 or Method 17 of Appendix A-6 to 40 CFR 60. The sample volume shall be at least 60 dscf (1.70 dscm). For Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but not higher than 121°C (250°F), to prevent water condensation on the filter.
- c. Pursuant to 40 CFR 60.675(b)(1), the permittee shall determine opacity using Method 9 of Appendix A-4 to 40 CFR 60 and the procedures in 40 CFR 60.11.

4. Specific Monitoring Requirements:

- a. Pursuant to 401 KAR 52:020, Section 10, the permittee shall perform a qualitative visible observation of the opacity emissions from the stack on a weekly basis and maintain a log of the observations. If visible emissions from the stack are observed, then opacity shall be determined by Method 9 as detailed in 40 CFR 60, Appendix A-4. If the opacity reading is greater than twenty (20) percent then initiate an inspection of the equipment and make repairs if necessary.
- b. Pursuant to 401 KAR 50:020, Section 10, the permittee shall inspect the control equipment weekly and make repairs as necessary to assure compliance.
- c. See Section F for further requirements.

5. Specific Recordkeeping Requirements:

- a. Pursuant to 401 KAR 52:020, Section 10, records of the limestone handled shall be maintained for emissions inventory purposes.
- b. Pursuant to 401 KAR 52:020, Section 10, the permittee shall keep visible observation records and Method 9 observations, any inspections and repair records in a designated logbook. Records shall be maintained for five years.

6. Specific Reporting Requirements:

- a. Pursuant to 40 CFR 60.676(f), the owner(s) or operator(s) of any emissions unit shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards of 40 CFR 60.672, including reports of observations using Method 22 to demonstrate compliance.
- b. See Section F for further requirements.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

7. Specific Control Equipment Operating Conditions:

- a. Pursuant to 401 KAR 50:055, the enclosures, bagfilters and foam water suppression shall be continuously operated to maintain compliance with permitted emission limitations, consistent with manufacturer's specifications and standard operating practices.
- b. Pursuant to 401 KAR 52:020, Section 10, records regarding the maintenance and operation of the fabric filters shall be maintained and retained by the permittee for a period of five years.
- c. See Section E for further requirements.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**Emissions Unit 16 (16-29) - Fly Ash Handling****Description:**

Equipment includes: Fly ash mechanical collector vacuum systems (Boiler units 1-2, 3-4, 5-6,7-8, and 9), two fly ash transfer silos, two fly ash disposal silos, conditioned fly ash unloading, dry fly ash & AFBC char/fly ash unloading, AFBC char/fly ash disposal silo, conditioned AFBC char/fly ash unloading, AFBC spent bed material (SBM) disposal silo, conditioned AFBC SBM unloading, and dry AFBC SBM and char/fly ash unloading, and controlled by a baghouse.

Reconstruction commenced: 1988

Maximum operating rates:

- | | |
|---|--|
| 1. Fly ash mechanical collector vacuum systems. | 18 tons/hr, each (for boiler units 1- 9) |
| 2. Two fly ash transfer silos. | 100 tons/hr, each |
| 3. Two fly ash disposal silos. | 300 tons/hr, each |
| 4. Conditioned fly ash unloading. | 460 tons/hr |
| 5. Dry fly ash & AFBC char/fly ash unloading. | 300 tons/hr |
| 6. AFBC char/fly ash disposal silo. | 300 tons/hr |
| 7. Conditioned AFBC char/fly ash unloading. | 460 tons/hr |
| 8. AFBC spent bed material (SBM) disposal. | 300 tons/hr |
| 9. Conditioned AFBC SBM unloading silo. | 230 tons/hr |
| 10. Dry AFBC SBM and char/fly ash unloading | 200 tons/hr |

Applicable Regulations:

401 KAR 59:010, New Process Operations

1. Operating Limitations:

NA

2. Emission Limitations:

- a. Pursuant to 401 KAR 59:010, Section 3(2), particulate matter emissions into the open air shall not exceed $[3.59(P)^{0.62}]$ lbs/hour, for process weight rates up to 60,000 lbs/hour and $[17.31(P)^{0.16}]$ lbs/hour for process weight rates in excess of 60,000 lbs/hour where P is the processing rate in tons per hour.
- b. Pursuant to 401 KAR 59:010, Section 3(1)(a), visible emissions from any stack shall not equal or exceed twenty (20) percent opacity, based on a six-minute average.

Compliance Demonstration:

See Subsection 4.b, of this unit.

3. Testing Requirements:

See Subsection 4.a of this unit.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements:

- a. Pursuant to 401 KAR 52:020, Section 10, the permittee shall perform a qualitative visible observation of the opacity emissions from the stack on a weekly basis and maintain a log of the observations. If visible emissions from the stack are observed, then opacity shall be determined by Method 9 as detailed in 40 CFR 60, Appendix A-4. If the opacity reading is greater than twenty (20) percent then initiate an inspection of the equipment and make repairs if necessary.
- b. Pursuant to 401 KAR 52:020, Section 10, the permittee shall inspect the control equipment on a weekly basis to ensure the operation is in compliance with manufacturer's specifications and standard operating practices.

5. Specific Recordkeeping Requirements:

- a. Pursuant to 401 KAR 52:020, Section 10, the owner or operator shall maintain the records of amount of fly ash processed.
- b. Pursuant to 401 KAR 59:005, Section 3(4), the owner or operator shall maintain the results of all compliance tests and calculations.
- c. Pursuant to 401 KAR 52:020, Section 10, the owner or operator shall record each week the date, time and the results of the visible emissions monitoring. In case of an exceedance, the owner or operator must record the reason (if known) and the measures taken to minimize or eliminate the exceedance.
- d. Pursuant to 401 KAR 52:020, Section 10, the owner or operator shall maintain the records of the control equipment inspection on a weekly basis.

6. Specific Reporting Requirements:

- a. See Section F for further requirements.
- b. Pursuant to 401 KAR 52:020, Section 10, the permittee shall keep visible observation records and Method 9 observations, any inspections and repair records in a designated logbook. Records shall be maintained for five years.

7. Specific Control Equipment Operating Conditions:

- a. Pursuant to 401 KAR 50:055, Section 5, the baghouses shall be maintained and operated to ensure the emission unit is in compliance with manufacturer's specifications and standard operating practices.
- b. Pursuant to 401 KAR 59:005, Section 3(4), records regarding the maintenance of the control equipment shall be maintained and retained by the permittee for a period of five years.
- c. See Section E for further requirements.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 17 (30-31) - Fly Ash Handling

Description:

Equipment includes: Fly ash, char/fly ash, SBM, dirt hauling and consolidated waste dry stack pile.

Controls: Water Suppression System/Compaction/Crustover

Maximum operating rate:

1. Fly ash, char/fly ash, SBM, dirt hauling: 775 tons/hr
2. Dirt hauling and consolidated waste dry stack pile: 775 tons/hr

Applicable Regulations:

401 KAR 63:010, Fugitive emissions is applicable to each affected facility which emits or may emit fugitive emissions and is not elsewhere subject to an opacity standard within the administrative regulations of the Division for Air Quality.

1. Operating Limitations:

- a. Pursuant to 401 KAR 63:010, Section 3, reasonable precautions shall be taken to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the following:
 - i. Application and maintenance of asphalt, oil, water, or suitable chemicals on roads, materials stockpiles, and other surfaces which can create airborne dusts;
 - ii. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling. Adequate containment methods shall be employed during sandblasting or other similar operations;
 - iii. Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne;
 - iv. The prompt removal of earth or other material from a paved street which earth or other material has been transported thereto by trucking or earth moving equipment or erosion by water when necessary
- b. Pursuant to 401 KAR 63:010, Section 3, discharge of visible fugitive dust emissions beyond the property line is prohibited.

2. Emission Limitations:

NA

3. Testing Requirements:

NA

4. Specific Monitoring Requirements:

See Section F for further requirements.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

5. Specific Recordkeeping Requirements:

Pursuant to 401 KAR 52:020, Section 10, the permittee shall maintain records of the fly ash processed (fly ash tonnages).

6. Specific Reporting Requirements:

See Section F for further requirements.

7. Specific Control Equipment Operating Conditions:

- a. Pursuant to 401 KAR 50:055, Section 5, the water spray suppression system and compaction shall be maintained and operated consistent with manufacturer's specifications and standard operating practices.
- b. Pursuant to 401 KAR 59:005, Section 3(4), records regarding the maintenance of the control equipment shall be maintained and retained by the permittee for a period of five years.
- c. See Section E for further requirements.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 18A (45) – Hydrated Lime Transportation

Description:

Equipment Includes: Haul Trucks and Unpaved/Paved Roads

Controls: Wet Suppression by watering, cleaning and road maintenance

Maximum operating rate: 43.6 tons/hr

Construction Commencement: 2013

Applicable Regulations:

401 KAR 63:010, Fugitive emissions is applicable to each affected facility which emits or may emit fugitive emissions and is not elsewhere subject to an opacity standard within the administrative regulations of the Division for Air Quality.

1. Operating Limitations:

- a. Pursuant to 401 KAR 63:010, Section 3, reasonable precautions shall be taken to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the following:
 - i. Application and maintenance of asphalt, oil, water, or suitable chemicals on roads, materials stockpiles, and other surfaces which can create airborne dusts;
 - ii. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling. Adequate containment methods shall be employed during sandblasting or other similar operations;
 - iii. Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne;
 - iv. The prompt removal of earth or other material from a paved street which earth or other material has been transported thereto by trucking or earth moving equipment or erosion by water when necessary
- b. Pursuant to 401 KAR 63:010, Section 3, discharge of visible fugitive dust emissions beyond the property line is prohibited.
- c. Pursuant to 401 KAR 63:010, Section 3, When dust, fumes, gases, mist, odorous matter, vapors, or any combination thereof escape from a building or equipment in such a manner and amount as to cause a nuisance or to violate any administrative regulation, the secretary may order that the building or equipment in which processing, handling and storage are done be tightly closed and ventilated in such a way that all air and gases and air or gas-borne

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

material leaving the building or equipment are treated by removal or destruction of air contaminants before discharge to the open air.

Compliance Demonstration:

The permittee shall demonstrate compliance with this requirement by good procedures listed above, and meeting the requirements of paragraphs 4., **Specific Monitoring Requirements**, and 5., **Specific Recordkeeping Requirements**.

2. Emission Limitations:

NA

3. Testing Requirements:

NA

4. Specific Monitoring Requirements:

- a. Pursuant to 401 KAR 52:020, Section 10, the permittee shall monitor the rate of material hauled (tons, VMT, gallons/hr, etc.) for each unit or vehicle on paved and unpaved roadways on a monthly basis.
- b. The permittee shall monitor actions taken (e.g. water usage for roads, enclosures are in good operating condition) to prevent the discharge of visible fugitive emissions beyond the property line for each unit on a monthly basis [401 KAR 52:020, Section 10].
- c. In addition, visual observations shall be made on a daily basis each day of operation to determine if fugitive dust is becoming airborne from storage piles and associated operations as a result of vehicular traffic or windy conditions. If such a condition develops, water or a chemical wetting agent shall be applied to these areas as specified in 401 KAR 63:010 as listed above.
- d. See Section F, **Monitoring, Recordkeeping, and Reporting Requirements**, Conditions 1, 2, and 3.

5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain records of the hydrated lime received in tons on a monthly basis [401 KAR 52:020, Section 10].
- b. Records of daily observations and support information as required in paragraph 4.b. **Specific Monitoring Requirements**, shall be kept in accordance with the provisions of Section F, **Monitoring, Recordkeeping, and Reporting Requirements**, Condition 2 [401 KAR 52:020, Section 10].

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

6. Specific Reporting Requirements:

See Section F, **Monitoring, Recordkeeping, and Reporting Requirements**, Conditions 5, 6, 7, and 8.

7. Specific Control Equipment Operating Conditions:

The associated air pollution control equipment for the emission unit shall be operated to maintain compliance with permitted emission limitations, consistent with manufacturer's specifications and standard operating practices [401 KAR 50:055].

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 18B (46-47) – Hydrated Lime Injection System

Description:

Equipment: Storage Silos, Feeder Hopper

Controls: Bin vent filters for Hydrated Lime Storage and Hydrated Lime Feeder

Maximum Operating Limit: 43.6 tons/hr for Storage Silos, 10.35 tons/hr for Feeder Hopper
90,667 tons per year per 12-month rolling total

Construction Commencement: 2013

Applicable Regulations:

401 KAR 59:010, New Process Operations

1. Operating Limitations:

See Subsection 7, **Specific Control Equipment Operating Conditions.**

2. Emission Limitations:

- a. Pursuant to 401 KAR 59:010, Section 3(1), the owner or operator shall not cause to be discharged into the atmosphere from any of the above listed units emissions equal to or greater than twenty (20) percent opacity.
- b. Pursuant to 401 KAR 59:010, particulate matter emissions from the feed hopper exhaust shall not exceed $[3.59P^{0.62}]$, or 15.28 lbs/hr where P is the material throughput rate in tons/hour. Particulate matter emissions from the storage silo exhaust shall not exceed $[17.31P^{0.16}]$, or 31.67 lbs/hr where P is the material throughput rate in tons/hr.

Compliance Demonstration Method:

Compliance with the particulate matter and opacity emission limits shall be demonstrated by qualitative visual observation and Method 9 testing as required in paragraph 4.a., **Specific Monitoring Requirements.**

3. Testing Requirements:

Testing shall be conducted at such times as may be requested by the cabinet in accordance with 401 KAR 50:045, Section 4.

4. Specific Monitoring Requirements:

- a. Pursuant to 401 KAR 52:020, Section 10, the owner or operator shall perform a qualitative visual observation of the opacity of emissions from each stack on a weekly basis and maintain a log of the observations. If visible emissions from any stack are seen, then a Method 9 (40 CFR 60, Appendix A) reading shall be conducted and an inspection shall be initiated of the control equipment for any repairs.
- b. Pursuant to 401 KAR 52:020, Section 10, the permittee shall complete weekly operation checks of the filter vents. The permittee shall verify that the filter are in service and

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

operating properly.

5. Specific Recordkeeping Requirements:

- a. Pursuant to 401 KAR 52:020, Section 10, the owner or operator shall maintain the records of amount of hydrated lime processed.
- b. Pursuant to 401 KAR 52:020, Section 10, the owner or operator shall record each week the date, time and the results of the visible emissions monitoring. In case of an exceedance, the owner or operator must record the reason (if known) and the measures taken to minimize or eliminate the exceedances.
- c. Pursuant to 401 KAR 52:020, Section 10, The permittee shall keep a log of all weekly visual observations, any Reference Method 9 tests performed, and any corrective actions taken.
- d. Inspections performed on bin vent filters shall be recorded in a log and made available for inspection by Division personnel.

6. Specific Reporting Requirements:

See section F for further requirements.

7. Specific Control Equipment Operating Conditions:

- a. Pursuant to 401 KAR 50:055, Section 2, the bin vent filters shall be maintained and operated consistent with manufacturer's specifications and standard operating practices to ensure the emission unit is in compliance with applicable requirements of 401 KAR 59:010.
- b. Pursuant to 401 KAR 59:005, Section 3(4), records regarding the maintenance of the control equipment shall be maintained.
- c. See Section E for further requirements.

SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:020, Section 6. While these activities are designated as insignificant the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary. Process and emission control equipment at each insignificant activity subject to a general applicable regulation shall be inspected monthly and qualitative visible emission evaluation made. The results of the inspections and observations shall be recorded in a log, noting color, duration, density (heavy or light), cause and any conservative actions taken for any abnormal visible emissions.

Description**Applicable Regulation****Coal Handling**

1. Clamshell bucket #1 to hopper at barge unloader #1-900 tph	401 KAR 63:010
2. Hopper discharge to conveyor BC-11-900 tph	401 KAR 63:010
3. Clamshell bucket #2 to hopper at barge unloader #2-900 tph	401 KAR 63:010
4. Hopper discharge to conveyor BC-12-900 tph	401 KAR 63:010
5. Conveyors BC-11 & BC-12 discharge into surge hopper-1,800 tph	401 KAR 63:010
6. Surge hopper discharge to conveyor BC-2-1,400 tph	401 KAR 63:010
7. Auxiliary stockout conveyor discharge to ground - 1,400 tph	401 KAR 63:010
8. Yard conveyor (open) horizontal movement - 1,400 tph	401 KAR 63:010
9. Pile discharge to reclaim hopper (underpile) at conveyor BC-8 head-1,400 tph	401 KAR 63:010
10. Reclaim hopper discharge to conveyor BC-8-1,400 tph	401 KAR 63:010
11. Pile discharge to reclaim hopper (underpile) at conveyor BC-9 head-1,400 tph	401 KAR 63:010
12. Reclaim hopper discharge to conveyor BC-9-1,400 tph	401 KAR 63:010
13. Coal bunker exhausts (Boiler Units 1-9) - 4,500 cfm/unit	401 KAR 63:010
14. Coal scales (Boiler Units 1-9)-1,200 cfm/unit	401 KAR 63:010

Ash Handling

1. Bottom ash drain pile-0.5 acre	401 KAR 63:010
2. Transfer bottom ash from drain pile to disposal pile	401 KAR 63:010
3. Bottom ash disposal pile-6.5 acres	401 KAR 63:010

Powerhouse (Units 1-9 and old Unit 10)

1. Hydrogen dump valve vents	NA
2. Loop seal tank vapor extractor	NA
3. Turbine oil tank vapor extractor	NA
4. Seal oil vacuum pump vent	NA

SECTION C - INSIGNIFICANT ACTIVITIES (CONTINUED)**Outside Buildings and Tanks**

- | | |
|---|----------------|
| 1. Water chemistry lab hood exhaust vents (3) | NA |
| 2. Hydrogen trailer ports A & B | NA |
| 3. Transformer clean oil tank-37,590 gal | NA |
| 4. Transformer dirty oil tank-37,590 gal | NA |
| 5. Boiler lighting-off fuel oil tanks (2) -37,500 gal. Each | NA |
| 6. Used circuit breaker oil tank - 10,000 gal | NA |
| 7. Powerline 2114 tank-3,000 gal | NA |
| 8. Powerline 2114 tank-4,000 gal | NA |
| 9. Powerline 2114 tank-500 gal | NA |
| 10. Diesel tanks (2) - est. 12,000 gal each | NA |
| 11. Gasoline tank- est. 10,000 gal | 401 KAR 59:050 |
| 12. Propane tank - 1,000 gal | NA |
| 13. Diesel tank (ash handling area) - 10,000 gal | NA |

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

1. As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 10; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.
2. Particulate matter, sulfur dioxide, opacity, nitrogen oxides, and carbon monoxide emissions, measured by applicable reference methods, or an equivalent or alternative method specified in 40 C.F.R. Chapter I, or by a test method specified in the state implementation plan shall not exceed the respective limitations specified herein.

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b-IV-1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
 - a. Date, place as defined in this permit, and time of sampling or measurements;
 - b. Analyses performance dates;
 - c. Company or entity that performed analyses;
 - d. Analytical techniques or methods used;
 - e. Analyses results; and
 - f. Operating conditions during time of sampling or measurement.
2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [Sections 1b-IV-2 and 1a-8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
3. In accordance with the requirements of 401 KAR 52:020 Section 3(1)h the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
 - a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
 - b. To access and copy any records required by the permit;
 - c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.
 - d. Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.
4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.
5. Summary reports of any monitoring required by this permit shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Sections 1b-V-1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

6. The semi-annual reports are due by January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to 401 KAR 52:020, Section 23. If continuous emission and opacity monitors are required by regulation or this permit, data shall be reported in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All deviations from permit requirements shall be clearly identified in the reports.
7. In accordance with the provisions of 401 KAR 50:055, Section 1 the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
 - a. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
 - b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.
8. The owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7 above) to the Regional Office listed on the front of this permit within 30 days. Deviations from permit requirements, including those previously reported under F.7 above, shall be included in the semiannual report required by F.6 [Sections 1b-V, 3 and 4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
9. Pursuant to 401 KAR 52:020, Permits, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
 - a. Identification of the term or condition;
 - b. Compliance status of each term or condition of the permit;
 - c. Whether compliance was continuous or intermittent;
 - d. The method used for determining the compliance status for the source, currently and over the reporting period.
 - e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

- f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications shall be mailed to the following addresses:

Division for Air Quality
Paducah Regional Office
130 Eagle Nest Drive
Paducah, KY 42003

U.S. EPA Region 4
Air Enforcement Branch
Atlanta Federal Center
61 Forsyth St.
Atlanta, GA 30303-8960

10. In accordance with 401 KAR 52:020, Section 22, the permittee shall provide the Division with all information necessary to determine its subject emissions within thirty (30) days of the date the KYEIS emission survey is mailed to the permittee.

SECTION G - GENERAL PROVISIONS**1. General Compliance Requirements**

- a. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:020 Section 3(1)(b) and a violation of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act). Noncompliance with this permit is grounds for enforcement action including but not limited to termination, revocation and reissuance, revision or denial of a permit [Section 1a-3 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- b. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a-6 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- c. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:020, Section 19. The permit will be reopened for cause and revised accordingly under the following circumstances:
 - (1) If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:020, Section 12;
 - (2) The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
 - (3) The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;
 - (4) New requirements become applicable to a source subject to the Acid Rain Program.

Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

- d. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with the conditions of this permit [Sections 1a- 7 and 8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- e. Emission units described in this permit shall demonstrate compliance with applicable requirements if requested by the Division [401 KAR 52:020 Section 3(1)(c)].

SECTION G - GENERAL PROVISIONS (CONTINUED)

- f. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority [401 KAR 52:020, Section 7(1)].
- g. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a-14 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- h. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a-4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- i. Except for requirements identified in this permit as state-origin requirements, all terms and conditions shall be enforceable by the United States Environmental Protection Agency and citizens. [Section 1a-15-b of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- j. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6) [Section 1a-10 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- k. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:020, Section 11(3) 2.].
- l. This permit does not convey property rights or exclusive privileges [Section 1a-9 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- m. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Cabinet or any other federal, state, or local agency.
- n. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry [401 KAR 52:020, Section 11(3) 4.].
- o. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders [401 KAR 52:020, Section 11(3) 1.].

SECTION G - GENERAL PROVISIONS (CONTINUED)

- p. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic Minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.
- q. Pursuant to 401 KAR 52:020, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of this permit shall be considered compliance with:
 - (1) Applicable requirements that are included and specifically identified in the permit and
 - (2) Non-applicable requirements expressly identified in this permit.

2. Permit Expiration and Reapplication Requirements

- a. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:020, Section 12].
- b. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:020, Section 8(2)].

3. Permit Revisions

- a. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of 401 KAR 52:020, Section 14(2).
- b. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

4. Construction, Start-Up, and Initial Compliance Demonstration Requirements

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the construction of the equipment described herein, emission units 18A and 18B in accordance with the terms and conditions of this permit.

- a. Construction of any process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.

SECTION G - GENERAL PROVISIONS (CONTINUED)

- b. Within thirty (30) days following commencement of construction and within fifteen (15) days following start-up and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Regional Office listed on the front of this permit in writing, with a copy to the Field Office Branch of the Frankfort Central Office, notification of the following:
 - (1) The date when construction commenced.
 - (2) The date of start-up of the affected facilities listed in this permit.
 - (3) The date when the maximum production rate specified in the permit application was achieved.
- c. Pursuant to 401 KAR 52:020, Section 3(2), unless construction is commenced within eighteen (18) months after the permit is issued, or begins but is discontinued for a period of eighteen (18) months or is not completed within a reasonable timeframe then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Upon written request, the Cabinet may extend these time periods if the source shows good cause.
- d. For those affected facilities for which construction is authorized by this permit, a source shall be allowed to construct with the proposed permit. Operational or final permit approval is not granted by this permit until compliance with the applicable standards specified herein has been demonstrated pursuant to 401 KAR 50:055. If compliance is not demonstrated within the prescribed timeframe provided in 401 KAR 50:055, the source shall operate thereafter only for the purpose of demonstrating compliance, unless otherwise authorized by Section I of this permit or order of the Cabinet.
- e. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but not later than 180 days after initial start-up of such facilities, the permittee shall conduct a performance demonstration on the affected facilities in accordance with 401 KAR 50:055, General compliance requirements. Testing must also be conducted in accordance with General Provisions G.5 of this permit.
- f. Terms and conditions in this permit established pursuant to the construction authority of 401 KAR 51:017 or 401 KAR 51:052 shall not expire.

SECTION G - GENERAL PROVISIONS (CONTINUED)

5. Testing Requirements

- a. Pursuant to 401 KAR 50:045, Section 2, a source required to conduct a performance test shall submit a completed Compliance Test Protocol form, DEP form 6028, or a test protocol a source has developed for submission to other regulatory agencies, in a format approved by the cabinet, to the Division's Frankfort Central Office a minimum of sixty (60) days prior to the scheduled test date. Pursuant to 401 KAR 50:045, Section 7, the Division shall be notified of the actual test date at least Thirty (30) days prior to the test.
- b. Pursuant to 401 KAR 50:045, Section 5, in order to demonstrate that a source is capable of complying with a standard at all times, any required performance test shall be conducted under normal conditions that are representative of the source's operations and create the highest rate of emissions. If [When] the maximum production rate represents a source's highest emissions rate and a performance test is conducted at less than the maximum production rate, a source shall be limited to a production rate of no greater than 110 percent of the average production rate during the performance tests. If and when the facility is capable of operation at the rate specified in the application, the source may retest to demonstrate compliance at the new production rate. The Division for Air Quality may waive these requirements on a case-by-case basis if the source demonstrates to the Division's satisfaction that the source is in compliance with all applicable requirements.
- c. Results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days or sooner if required by an applicable standard, after the completion of the fieldwork.

6. Acid Rain Program Requirements

- a. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.
- b. The permittee shall comply with all applicable requirements and conditions of the Acid Rain Permit and the Phase II permit application (including the Phase II NOx compliance plan and averaging plan, if applicable) incorporated into the Title V permit issued for this source. The source shall also comply with all requirements of any revised or future acid rain permit(s) issued to this source.

7. Emergency Provisions

- a. Pursuant to 401 KAR 52:020, Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
 - (1) An emergency occurred and the permittee can identify the cause of the emergency;

SECTION G - GENERAL PROVISIONS (CONTINUED)

- (2) The permitted facility was at the time being properly operated;
- (3) During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
- (4) Pursuant to 401 KAR 52:020, 401 KAR 50:055, and KRS 224.01-400, the permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
- (5) This requirement does not relieve the source of other local, state or federal notification requirements.

- b. Emergency conditions listed in General Condition G.7.a above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:020, Section 24(3)].
- c. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:020, Section 24(2)].

8. Ozone Depleting Substances

- a. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
 - (1) Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
 - (2) Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
 - (3) Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
 - (4) Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166
 - (5) Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
 - (6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
- b. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, *Servicing of Motor Vehicle Air Conditioners*.

SECTION G - GENERAL PROVISIONS (CONTINUED)

9. Risk Management Provisions

- a. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

RMP Reporting Center
P.O. Box 1515
Lanham-Seabrook, MD 20703-1515.

- b. If requested, submit additional relevant information to the Division or the U.S. EPA.

SECTION H - ALTERNATE OPERATING SCENARIOS

NA

SECTION I - COMPLIANCE SCHEDULE

NA

SECTION J -ACID RAIN PERMIT**ACID RAIN PERMIT CONTENTS**

- 1) Statement of Basis
- 2) SO₂ allowances allocated under this permit and NO_x requirements for each affected unit.
- 3) Comments, notes and justifications regarding permit decisions and changes made to the permit application forms during the review process, and any additional requirements or conditions.
- 4) The permit application submitted for this source. The owners and operators of the source must comply with the standard requirements and special provisions set forth in the Phase II Application and the Phase II NO_x Compliance Plan.
- 5) Summary of Actions

1) Statement of Basis:

Statutory and Regulatory Authorities: For emission units 01-10, the Energy and Environment Cabinet, Division of Air Quality issues this permit pursuant to 401 KAR 52:020, Permits, 401 KAR 52:060, Acid Rain Permit, and 40 CFR 76 and in accordance to KRS 224.10-100 and Titles IV and V of the Clean Air Act.

i. SO₂ Allowance Allocations and NO_x Requirements for the affected units:

SO ₂ Allowances: Tables 2, 3 or 4 of 40 CFR Part 73	Year				
	2009	2010	2011	2012	2013
Unit 1	3,643*	2,622*	2,622*	2,622*	2,622*
Unit 2	3,672*	2,702*	2,702*	2,702*	2,702*
Unit 3	3,707*	3,043*	3,043*	3,043*	3,043*
Unit 4	3,593*	3,025*	3,025*	3,025*	3,025*
Unit 5	3,825*	2,954*	2,954*	2,954*	2,954*
Unit 6	3,711*	3,242*	3,242*	3,242*	3,242*
Unit 7	3,639*	3,581*	3,581*	3,581*	3,581*
Unit 8	3,570*	3,427*	3,427*	3,427*	3,427*
Unit 9	3,665*	3,672*	3,672*	3,672*	3,672*
Unit 10	4,893*	4,903*	4,903*	4,903*	4,903*

* The number of allowances allocated to Phase II affected units by the U.S. EPA may change under 40 CFR part 73. In addition, the number of allowances actually held by an affected source in a unit account may differ from the number allocated by U. S. EPA. Neither of the aforementioned conditions necessitate a revision to the unit SO₂ allowance allocations identified in this permit (See 40 CFR 72.84).

SECTION J -ACID RAIN PERMIT (CONTINUED)

NO_x Requirements:	NO_x Limits
Units 01-09	<p>Pursuant to 40 CFR Part 76, the Kentucky Division for Air Quality approves a NO_x standard emissions limitation compliance plan for units 01-09. The NO_x compliance plan is effective from January 1, 2009 through December 31, 2013. Under the NO_x compliance plan, annual average NO_x emission rate for each year, determined in accordance with 40 CFR Part 75, shall not exceed the applicable emission limitation, under 40 CFR 76.7(a)(2), of 0.46 lb/MMBtu for dry bottom wall-fired boilers.</p> <p>In addition to the described NO_x compliance plan, this unit shall comply with all other applicable requirements of 40 CFR Part 76, including the duty to reapply for a NO_x compliance plan and requirements covering excess emissions.</p>
Unit 10	Federal Regulation 40 CFR Part 76 does not specify any nitrogen oxides limitation for this Atmospheric Fluidized Bed Unit.

ii. **Comments, Notes, and Justifications:**

- a. Affected units are nine (9) dry bottom wall fired boilers and one (1) atmospheric fluidized bed boiler.
- b. The atmospheric fluidized bed boiler, unit 10, currently does not have applicable NO_x limits set by 40 CFR part 76.

iii. **Permit Application:**

The Acid Rain Permit Application and CAIR Permit Application are a part of this permit and the source must comply with the standard requirements and special provisions set forth in the applications.

iv. **Summary of Actions:****Previous Actions:**

1. Draft Phase II Permit (# AR-96-17) including SO₂ compliance was issued for public comments on September 19, 1996.
2. Final Phase II Permit (# AR-96-17) including SO₂ compliance plan was issued on February 21, 1997.
3. Draft Phase II Permit (# A-98-004) was issued with 1998 revised SO₂ allowance allocations and NO_x emissions standard for public comment on December 7, 1998.
4. Final Phase II Permit (# A-98-004) including the 1998 revised SO₂ allowance allocations and NO_x emissions standards was issued on June 18, 1999.

Present Action:

Draft Title V with Section J Acid Rain Permit has been proposed for public comment.

SECTION K – CLEAN AIR INTERSTATE RULE (CAIR)

1) Statement of Basis

Statutory and Regulatory Authorities: In accordance with KRS 224.10-100, the Kentucky Energy and Environmental Cabinet issues this permit pursuant to 401 KAR 52:020 Title V permits, 401 KAR 51:210, CAIR NO_x Annual Trading Program and 401 KAR 51:220, CAIR NO_x Ozone Trading Program and 401 KAR 51:230, CAIR SO₂ Trading Program.

2) CAIR Application

The CAIR application for ten electrical generating units was submitted to the Division and received on July 03, 2007. Requirements contained in that application are hereby incorporated into and made part of this CAIR Permit. Pursuant to 401 KAR 52:020, Section 3, the source shall operate in compliance with those requirements.

3) Comments, notes, justifications regarding permit decisions and changes made to the permit application forms during the review process, and any additional requirements or conditions.

The Affected units are nine (9) pulverized coal-fired steam generators (Emission Units 01-09) and one (1) coal-fired fluidized-bed combustor (Emission Unit 10). Each unit has a nameplate capacity to generate greater than 25 megawatts of electricity, which is offered for sale. The units use coal as fuel source, and are authorized as base load electric generating units.

4) Summary of Actions

The CAIR Permit is being issued as part of the Title V permit for this source. Public, affected state, and U.S. EPA review will follow procedures specified in 401 KAR 52:100.